EXHIBIT 55

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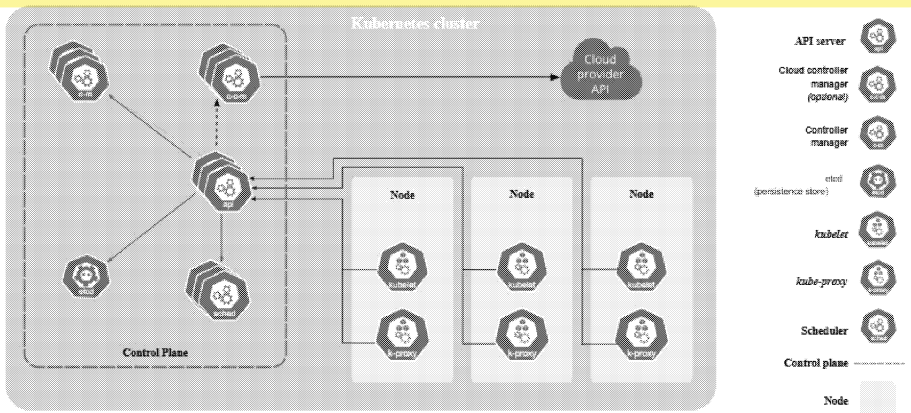
Kubernetes Components

An overview of the key components that make up a Kubernetes cluster.

This page provides a high-level overview of the essential components that make up a Kubernetes cluster.



The components of a Kubernetes cluster

Core Components

A Kubernetes cluster consists of a control plane and one or more worker nodes. Here's a brief overview of the main components:

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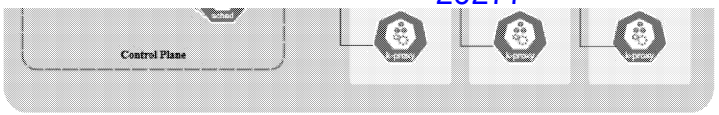

The components of a Kubernetes cluster

Core Components

A Kubernetes cluster consists of a control plane and one or more worker nodes. Here's a brief overview of the main components:

Control Plane Components

Manage the overall state of the cluster:

kube-apiserver

The core component server that exposes the Kubernetes HTTP API

etcd

Consistent and highly-available key value store for all API server data

kube-scheduler

Looks for Pods not yet bound to a node, and assigns each Pod to a suitable node.

kube-controller-manager

Runs controllers to implement Kubernetes API behavior.

cloud-controller-manager (optional)

Integrates with underlying cloud provider(s).

Node Components

Run on every node, maintaining running pods and providing the Kubernetes runtime environment:

kubelet

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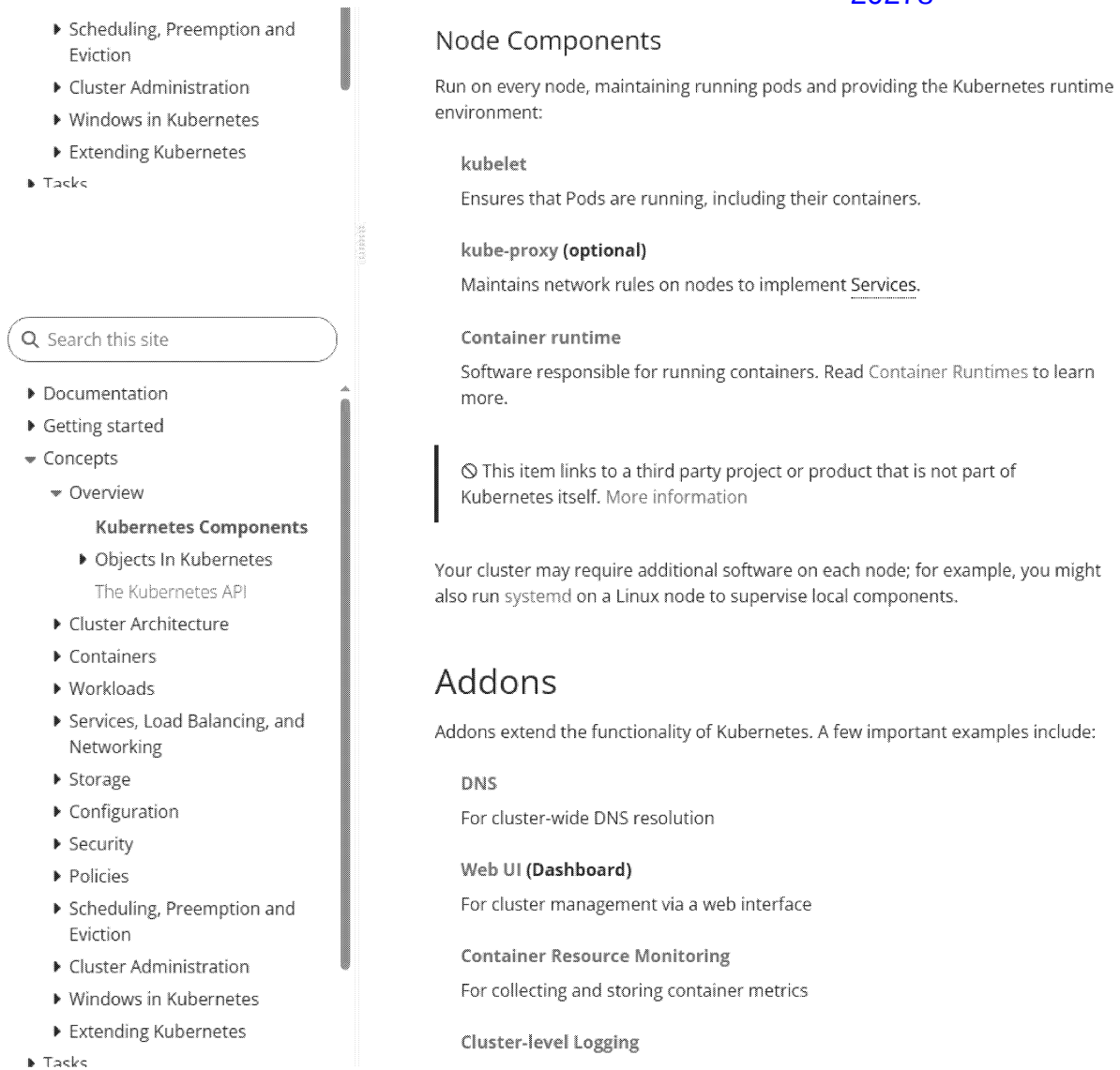

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For cluster management via a web interface

Container Resource Monitoring

For collecting and storing container metrics

Cluster-level Logging

For saving container logs to a central log store

Flexibility in Architecture

Kubernetes allows for flexibility in how these components are deployed and managed. The architecture can be adapted to various needs, from small development environments to large-scale production deployments.

For more detailed information about each component and various ways to configure your cluster architecture, see the Cluster Architecture page.

> Items on this page refer to third party products or projects that provide functionality required by Kubernetes. The Kubernetes project authors aren't responsible for those third-party products or projects. See the CNCF website guidelines for more details.
>
> You should read the content guide before proposing a change that adds an extra third-party link.

Feedback

Was this page helpful?

Yes No

Last modified August 26, 2024 at 9:34 AM PST: Tweak long lines in cluster architecture and components (70dafafca5)

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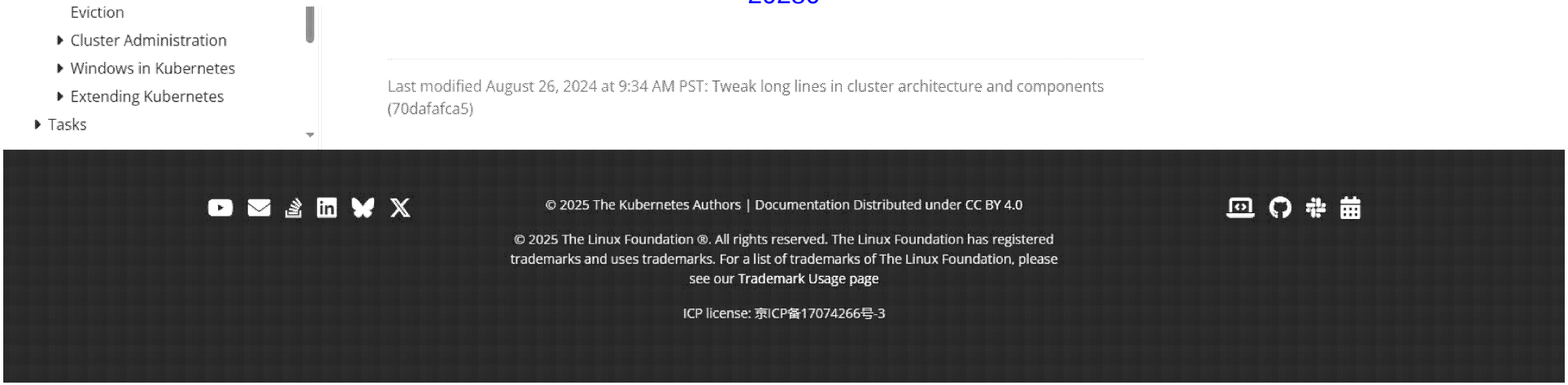

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